

Amendments To The Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A rapid-action coupling cylinder comprising:

~~a guiding device for the controlled which controls~~  
insertion of a pull-in nipple (2) fixed to the underside of a workpiece pallet (19) into ~~the~~ a central receiving aperture in ~~the~~ a housing (11) of the rapid-action coupling cylinder (1),

~~characterized in that the wherein a front face on a~~  
~~free end of the pull-in nipple (2) has, in the direction of~~  
~~insertion, and a conical bevels bevel (17) that are is beveled~~  
~~toward the rear, which cooperate cooperates with an associated~~  
~~[-] and oppositely beveled conical receptacle (18) in the~~  
~~housing (11) of the rapid action coupling cylinder (1);~~

wherein an inner beveled circumference of the  
receiving aperture (4) on a cover of the housing (11) has an  
inlet radius (102) that engages the conical bevel (17) and  
guides the pull-in nipple (2) into the conical receptacle  
(18), and

wherein the conical receptacle (18) is formed by a  
upper ball bearing cup (8) and a lower spring support (9).

Claims 2-3 (Canceled)

4. (Currently Amended) A rapid-action coupling cylinder comprising:

a guiding device ~~for the controlled~~ which controls insertion of a pull-in nipple (2) fixed to the underside of a workpiece pallet (19) into ~~the~~ a central receiving aperture in ~~the~~ a housing (11) of the rapid-action coupling cylinder (1), characterized in that the face wherein a free end of the pull-in nipple (2) ~~incorporates~~ has a recessed conical receptacle (33) that ~~cooperates with~~ engages an associated [-] and oppositely beveled conical tip (34) in the housing (11) ~~of the rapid-action coupling cylinder (1)~~.

5. (Currently Amended) A rapid-action coupling cylinder according to ~~any of claims 1 through 4~~ claim 1, characterized in that wherein the conical members (17, 34) receptacle (18) disposed in the housing (11) ~~are arranged~~ is fixed to the housing.

6. (Currently Amended) A rapid-action coupling cylinder according to ~~any of claims 1 through 5~~ claim 4, characterized in that wherein the conical members (17, 22, 34) oppositely beveled tip (34) disposed in the housing ~~are~~ is

fixed on a lifting piston ~~(21, 31, 61, 71)~~ that is arranged raisable and lowerable in the housing.

7. (Currently Amended) A rapid-action coupling cylinder according to ~~any of claims 1 through 6~~ claim 6, characterized in that, in the a region where the pull-in nipple (2) and the lifting piston ~~(21, 31, 61, 71)~~ make contact, the corresponding contacting and associated surfaces are kept free from contaminations.

8. (Currently Amended) A rapid-action coupling cylinder according to claim 7, characterized in that wherein the lifting piston ~~(21, 31, 61, 71)~~ has provided in it blowing-air openings or cooling agent openings that are directed towards ~~the~~ associated surfaces of the pull-in nipple (2).

9. (Currently Amended) A rapid-action coupling cylinder according to ~~any of claims 1 through 8~~ claim 6, characterized in that wherein the lifting piston (21) is implemented also composed of several parts and that the an upper part thereof consists of an easily exchangeable wear insert (28).

10. (Currently Amended) A rapid-action coupling cylinder according to ~~any of claims 1 through 9~~ claim 6,

~~characterized in that~~ wherein disposed in the lifting piston (21, 31) is a turbine wheel (36) that is driven in rotation.

11. (Currently Amended) A rapid-action coupling cylinder according to ~~any of claims 1 through 10~~ claim 6, ~~characterized in that~~ wherein in ~~the~~ a region of the conical tip (34) of the lifting piston (31), an annular projection (35) with nose-shaped cross section is provided that chops shavings that enter into the intermediate space between the pull-in nipple (2) and lifting piston (31).

12. (Currently Amended) A rapid-action coupling cylinder according to any of claims 1 through 11, ~~characterized in that~~ wherein an air-carrying space is formed on ~~the~~ an underside of the workpiece pallet (19).

13. (Currently Amended) A rapid-action coupling cylinder according to ~~any of claims 1 through 12~~ claim 1 or 4, ~~characterized in that~~ wherein a sealing-air monitoring is provided for monitoring ~~the~~ a flat and level seat of the workpiece pallet (19) on ~~the~~ a top surface of the cover (6).

14. (Currently Amended) A rapid-action coupling cylinder comprising a guiding device ~~for the controlled~~ which controls insertion of a pull-in nipple (2) fixed to ~~the~~ an underside of a workpiece pallet (19) into ~~the~~ a central

receiving aperture in ~~the~~ a housing (11) of the rapid-action coupling cylinder (1), ~~characterized in that~~ wherein between the pull-in nipple (2) and a lifting piston (21, 31, 61, 71) disposed in ~~the~~ an interior of ~~the~~ a rapid-action coupling cylinder, a capturing device (50, 53, 54, 56) is arranged ~~for~~ the mechanical connection which mechanically connects ~~of~~ the pull-in nipple to the lifting piston.

15. (Currently Amended) A rapid-action coupling cylinder according to claim 14, ~~characterized in that~~ wherein the capturing device consists of a capture screw (50) having a stepped shape with multiple steps, which extends through the pull-in nipple (32) and is engageable to a capturing element (56) fixed on the lifting piston.

16. (Currently Amended) A rapid-action coupling cylinder according to ~~one or more of claims 1 through 15~~ claim 6, ~~characterized in that~~ wherein between the pull-in nipple (2) and ~~a~~ the lifting piston (21, 31, 61, 71) disposed in the interior of the rapid-action coupling cylinder, a capturing device (50, 53, 54, 56) is arranged ~~for the~~ mechanical connection which mechanically connects ~~of~~ the pull-in nipple to the lifting piston.

17. (Currently Amended) A rapid-action coupling cylinder according to ~~one or more of claims 1 through 16~~ claim 1 or 4, characterized in that in the case of wherein multiple pull-in nipples that are arranged parallel with each other on the underside of a workpiece pallet, wherein a capturing device is assigned to each pull-in nipple in a separate rapid-action coupling cylinder, all capturing devices are driven synchronously.

18. (Currently Amended) A rapid-action coupling cylinder according to claim 17, ~~characterized in that~~ wherein the lifting pistons (71) that are connected to the capturing device in each case are mechanically connected to each other by means of a toggle-lever rod assembly (70, 72, 81, 82).

19. (Currently Amended) A rapid-action coupling cylinder comprising a locking action, effected by spring-biased balls, of a round member that has at least one locking groove and moves in a center recess of the housing in the rapid-action coupling cylinder, and whose locking action is released by displacement of the balls by means of a fluid-actuated piston, ~~characterized in that~~ wherein the round member is implemented as a machine shaft (91) that extends through the housing (11) of the rapid-action coupling cylinder (1).

20. (Currently Amended) A rapid-action coupling cylinder according to claim 19, ~~characterized in that wherein~~ the machine shaft (91) has one or a plurality of locking grooves (92, 93, 94) arranged at an axial distance from each other, parallel with each other, which are selectively engageable with ~~the~~ a locking means of the rapid-action coupling cylinder (1).

21. (Currently Amended) A rapid-action coupling cylinder according to ~~one or more of claims 1 through 20~~ claim 1 or 4, ~~characterized in that wherein~~ two oppositely acting rapid-action coupling cylinders (1, 1') engage in locking grooves (92, 93, 94) and create an opposite pull-in force in each case.

22. (Currently Amended) A rapid-action coupling cylinder according to ~~one or more of claims 1 through 21~~ claim 20, ~~characterized in that wherein~~ the machine shaft (91) is supported rotatably in the locking means of the rapid-action coupling cylinder.

23. (New) A rapid-action coupling cylinder according to claim 4, wherein the recessed conical receptacle (33) disposed in the housing (11) is fixed to the housing.